

Work Order ID 136472

Thursday, September 03, 2015 7:27:53 AM

Page 1

Item ID: 646.3311

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: RH Half

Start Date: 9/4/2015 Start Qty: 4.00 *4*

Cust Item ID:

Required Date: 9/4/2015 Req'd Qty: 4.00 *4*

Customer:

Reference:

Approvals: Process Plan: ML5 Date: SEP 04 2015 Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start *NR1*
Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
646.3300	N/C3

110

0.09

110

HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.25

HAAS CNC vertical machine #1

1-Machine per folio FB154

DWG REV: N/C3

FOLIO REV: AA

Blank 13.375

2- deburr and break all sharp edges

4 0 OK
15/10/05
MIP
15/10/06

120

QC2- Inspect parts off machine FAI/FAIB

0.00

120

QC

Memo

0.00

Quality Control

4 0 OK
15/10/05
MIP
15/10/06

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Date :	Step #:	QTY Effective :		MRB (QS1042) Approval																	
Description Work Order Deviation		Disposition		Completed By																	
				Lead hand / Supervisor Approval Verification																	
				QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐																
OTHER : ☐																					

Work Order ID 136472***136472***

Page 2

Thursday, September 03, 2015 7:27:53 AM

Item ID: 646.3311

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: RH Half

Start Date: 9/4/2015 Start Qty: 4.00

4

Cust Item ID:

Required Date: 9/4/2015 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start ***NR1***

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

QC8- Inspect parts - second check

0.00

130

QC

Memo

0.00

Quality Control

4 0 Jfe 2015-10-06

131

0.00

131

HandFinish

Memo

0.00

Hand Finishing

CLEAN AND REMOVE ALL PART MARKING

140

Outsource process-Anodize per QSI017 4.1.10.1

0.00

140

Outsource4

Memo

0.00

Outsource process - Anodize

Issue P/O to ATG : 30057

1- Black Anodize as per Dwg 646.3300

2- PRIME AS PER DWG, SEE NOTE #2

Certification of Comformity is required

CZ OCT 07 2015 4

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Work Order ID 136472

136472

Page 3

Thursday, September 03, 2015 7:27:53 AM

Item ID: 646.3311 Accept ***N900040100*** Setup Start ***NS1***
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 Item Name: RH Half
 Start Date: 9/4/2015 Start Qty: 4.00 ***4*** Cust Item ID:
 Required Date: 9/4/2015 Req'd Qty: 4.00 ***4*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	Receive & Inspect for Damage & Mat'l Certs	0.00							
150									
Packaging	Memo	0.00							
Packaging									
155	QC5- Inspect part completeness to step on W/O	0.00							
155									
QC	Memo	0.00							
Quality Control									
180	Identify as per dwg & Stock Location: <i>CCR 022</i>	0.00							
180									
Packaging	Memo	0.00							
Packaging	***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***								

4 **DAS 38 9-89 OCT 15 2015**

(4) **DAS 38 9-89 OCT 15 2015**

4 **DAS 6 9-89 OCT 15 2014**

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Work Order ID 136472***136472***

Page 4

Thursday, September 03, 2015 7:27:53 AM

Item ID: 646.3311

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: RH Half

Stop

NS2

Start Date: 9/4/2015 Start Qty: 4.00

4

Cust Item ID:

Required Date: 9/4/2015 Req'd Qty: 4.00

4

Customer:

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Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

190

QC21- Final Inspection - Work Order Release

0.00

190

QC

Memo

0.00

Quality Control

MLJ

OCT 19 2015

20151016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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Picklist Print

Thursday, September 03, 2015 7:27:57 AM

Page 1

Work Order ID: 136472

136472

Parent Item: 646.3311

646 3311

Parent Item Name: RH Half

Start Date: 9/4/2015

Required Date: 9/4/2015

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP REV:A NEW ISSUE 12/11/27 JFS VERIFY BY: JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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M7075T6B7.000X2.000

Purchased

No

f

6.0000

4.694737

M7075T6B7 000X2 000

7075-T6 BAR 7.000" X 2.000" (order in billets)

Location

Loc Qty

Loc Code

MAT024

6

m130760

6

1133139 X 4.7

amf 15/10/05

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Design ☐	Operator ☐																																																																			
Doc/Data ☐	Offset/Setup ☐																																																																			
Equip/Tooling ☐	Supplier ☐																																																																			
Handling/Pre ☐	Training ☐																																																																			
Material ☐	Use for Testing ☐																																																																			
Internal Transport ☐	Poor Information ☐																																																																			
Tribal Knowledge ☐	Rushing ☐																																																																			
LOA ☐	Product Improvement ☐																																																																			
Substation ☐	Process Improvement ☐																																																																			
Past Expiry Date ☐	Manufacturing Process ☐																																																																			
Misidentified ☐	Past Due ☐																																																																			
Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐																																																																	
Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐																																																																	
Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐																																																																	
Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐																																																																	
Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐																																																																	
Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐																																																																	
Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐																																																																	
Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐																																																																	
Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐																																																																	
Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐																																																																	
		OTHER : ☐																																																																		

APICAL

INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO.

04765

SHEET 1 OF 1

DWG NO. 646.3300

REV: NC

PREPARED BY J. SOTO

DATE: 12/08/2014

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: UPPER CUTTER ASSY

APPROVED BY: ENGR. *[Signature]*

MFC *[Signature]*

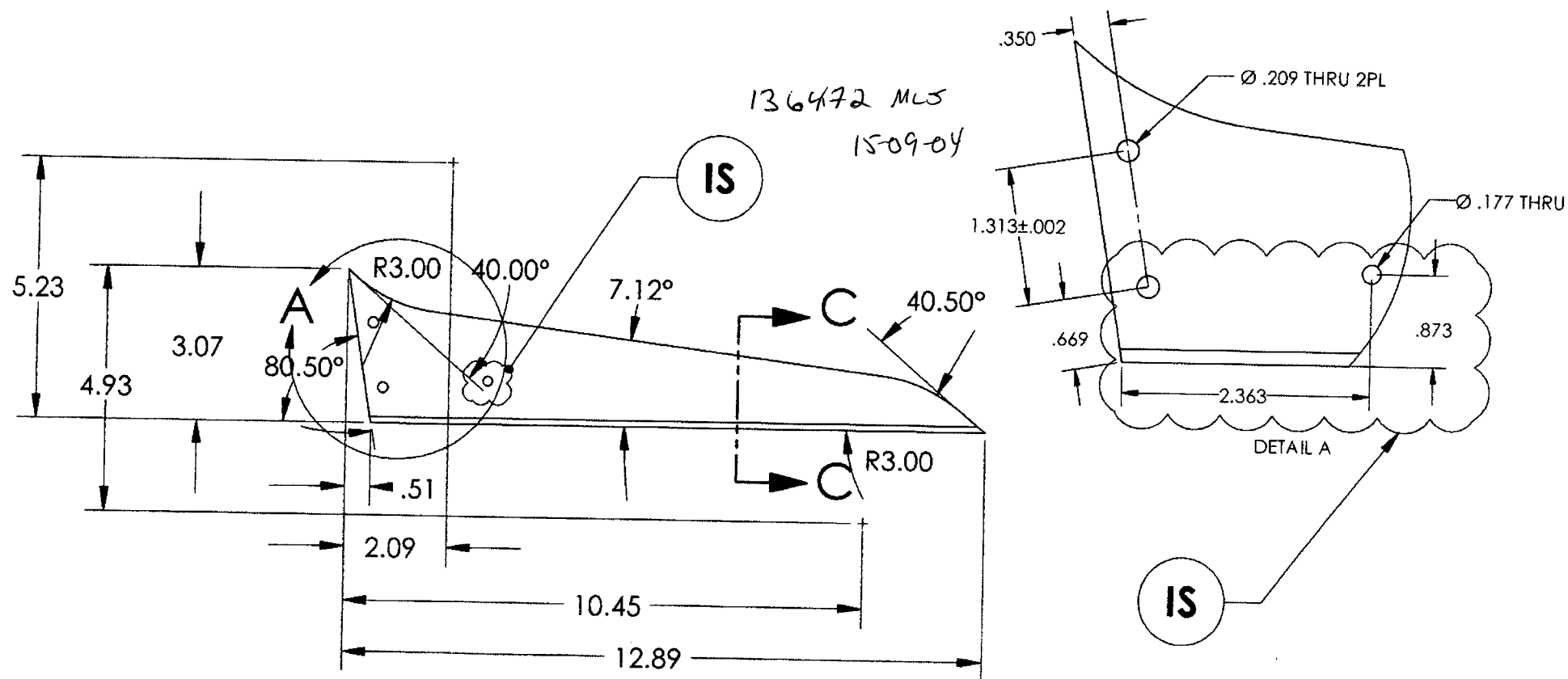
QC *[Signature]*

EFF. NEXT ORDER

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

REASON: ADDED HOLE DIMENSION TO 646.3313.

SHEET 5 IS:



DOCUMENTS EFFECTED:

☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☐ BOM

CHANGE CATEGORY
☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED
☐ YES ☒ NO

APICAL
INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO. 03724

SHEET 1 OF 1

DWG NO. 646.3300

REV: N/C

PREPARED
BY B. PETERS

DATE: 12/05/12

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: UPPER CUTTER ASSY

APPROVED BY: ENGR *[Signature]*

MFG *[Signature]*

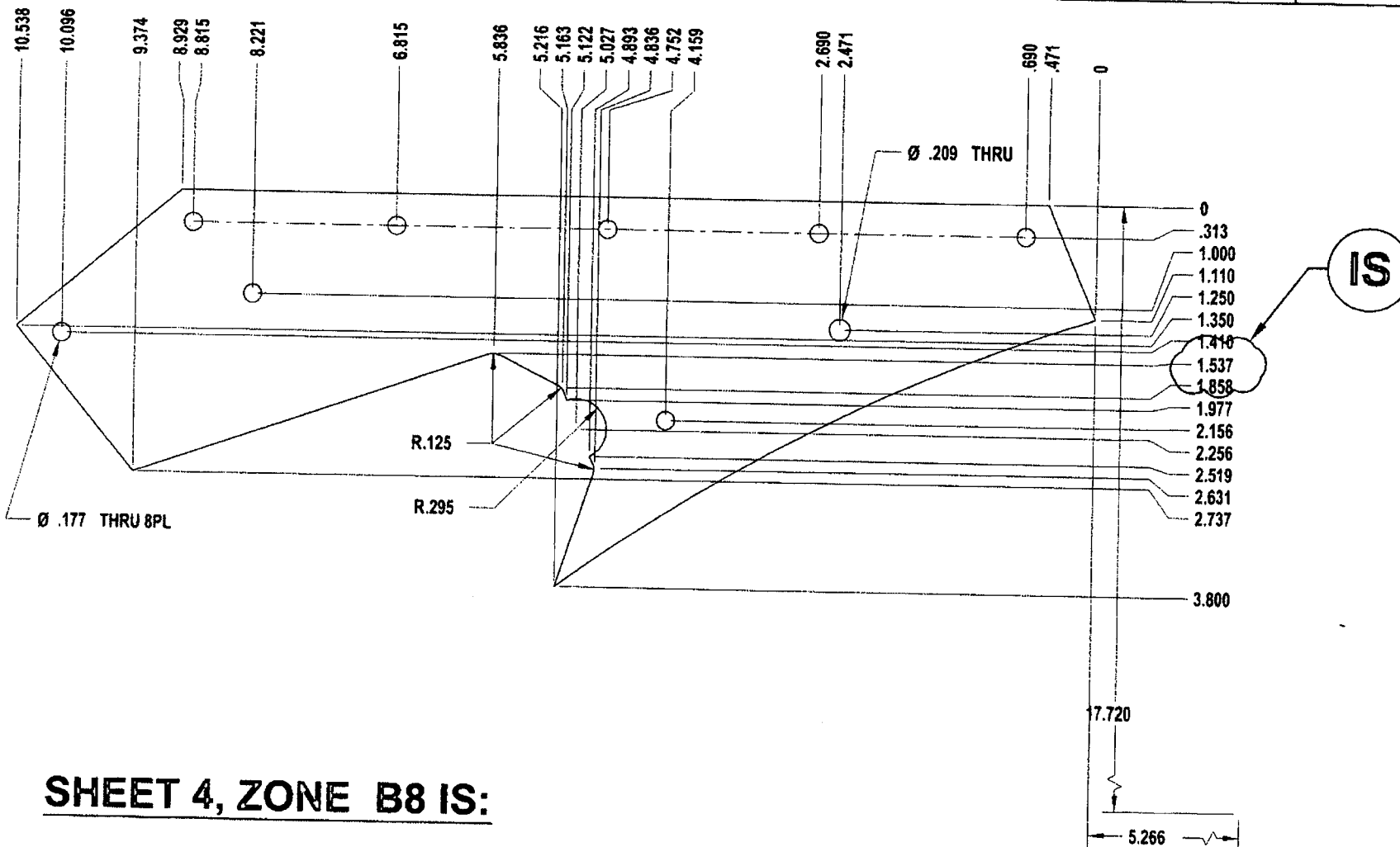
QC *[Signature]*

EFF: NEXT ORDER

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

REASON:
REVISED ORDINATE DIMENSION.

ECR:
D-12-025



SHEET 4, ZONE B8 IS:

DOCUMENTS EFFECTED:

☐ RFMS ☐ MDL ☐ INSTALL INSTRU ☐ ICA ☐ BOM

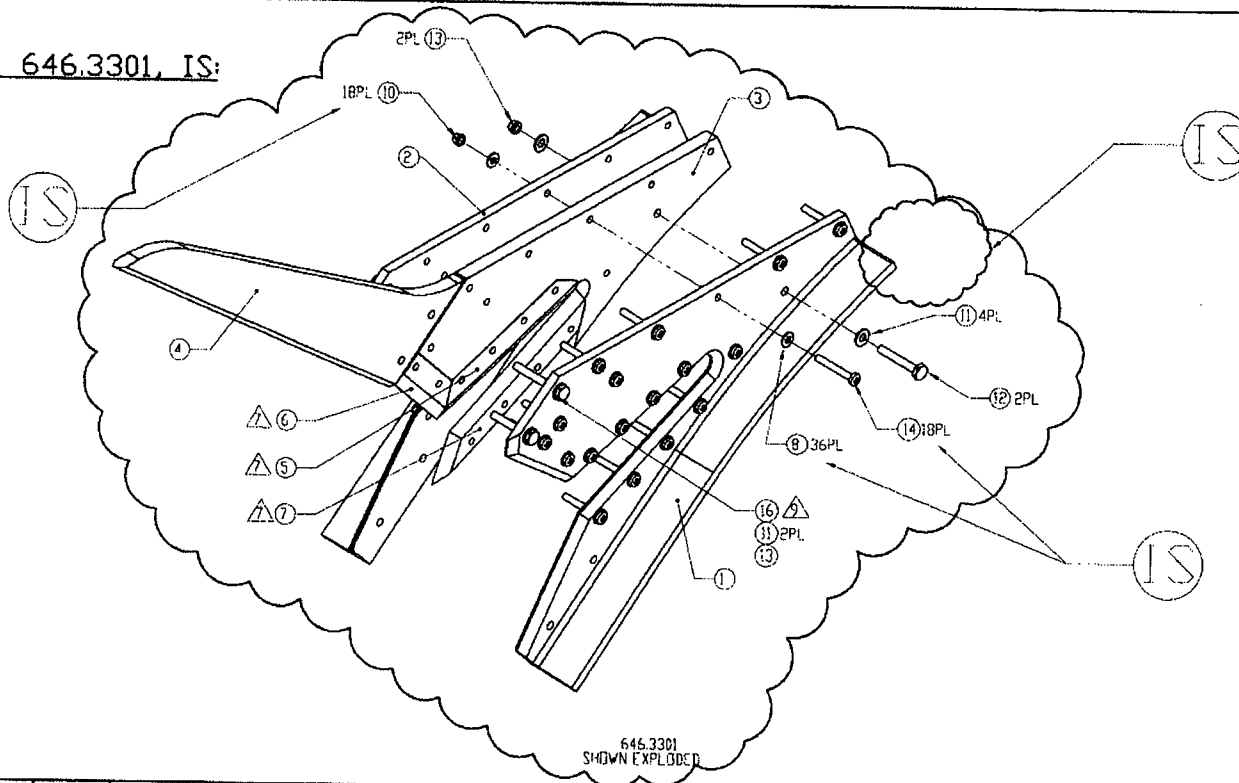
CHANGE CATEGORY
☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED
☐ YES ☒ NO

APICAL
INDUSTRIES, INC.

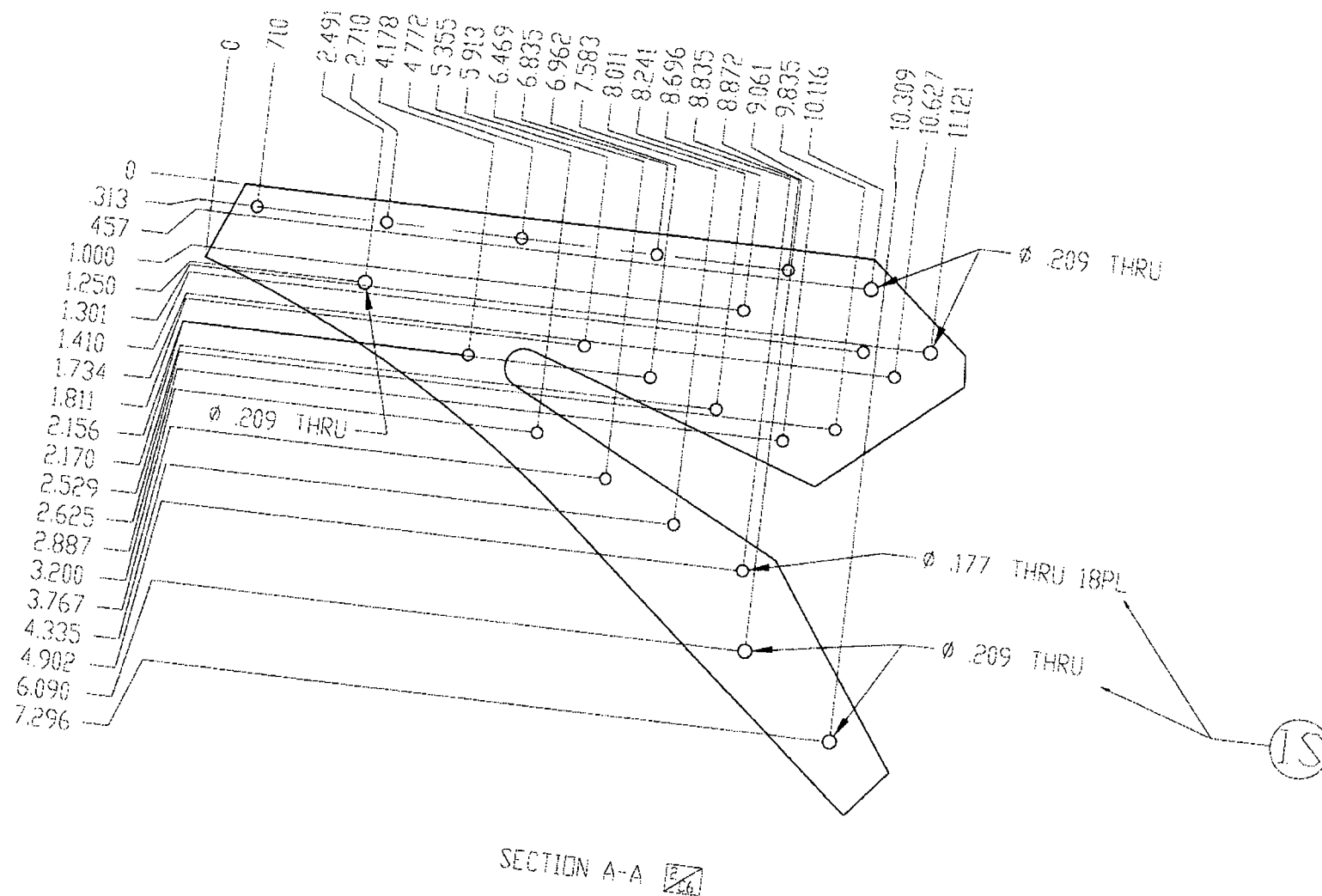
ENGINEERING CHANGE NOTICE NO.		02196		SHEET 1 OF 2	
DWG NO.	646.3300	REV/N/C	PREPARED BY	S. HUFF	DATE: 01/05/09
DWG TITLE:		UPPER CUTTER ASSY			
APPROVED BY:	ENGR <i>[Signature]</i>	MFG <i>[Signature]</i>	QC	<i>[Signature]</i>	EFF: NEXT ORDER
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE		REASON: REMOVED RIVETS IN FAVOR OF ADDITIONAL SCREWS <i>[Signature]</i>			

SHEET 1, VIEW 646.3301, IS:



14	R	601.2765	18	SCREW	MS27039-0819
10	R	601.1541	18	LOCKNUT	MS21042L08
9	D	601.2766	3	RIVET	MS20470AD5-18
8	R	601.2764	36	WASHER	NAS1149FN832P
			3301		
F/N TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION	
DOCUMENTS EFFECTED:				CHANGE CATEGORY	DER REVIEW REQUIRED
☐ MDL ☒ INSTALL INSTRUC ☒ ICA ☐ FMS ☒ BOM				☐ MAJOR ☒ MINOR	☐ YES ☒ NO

SHEET 3, SECTION VIEW A-A, IS:



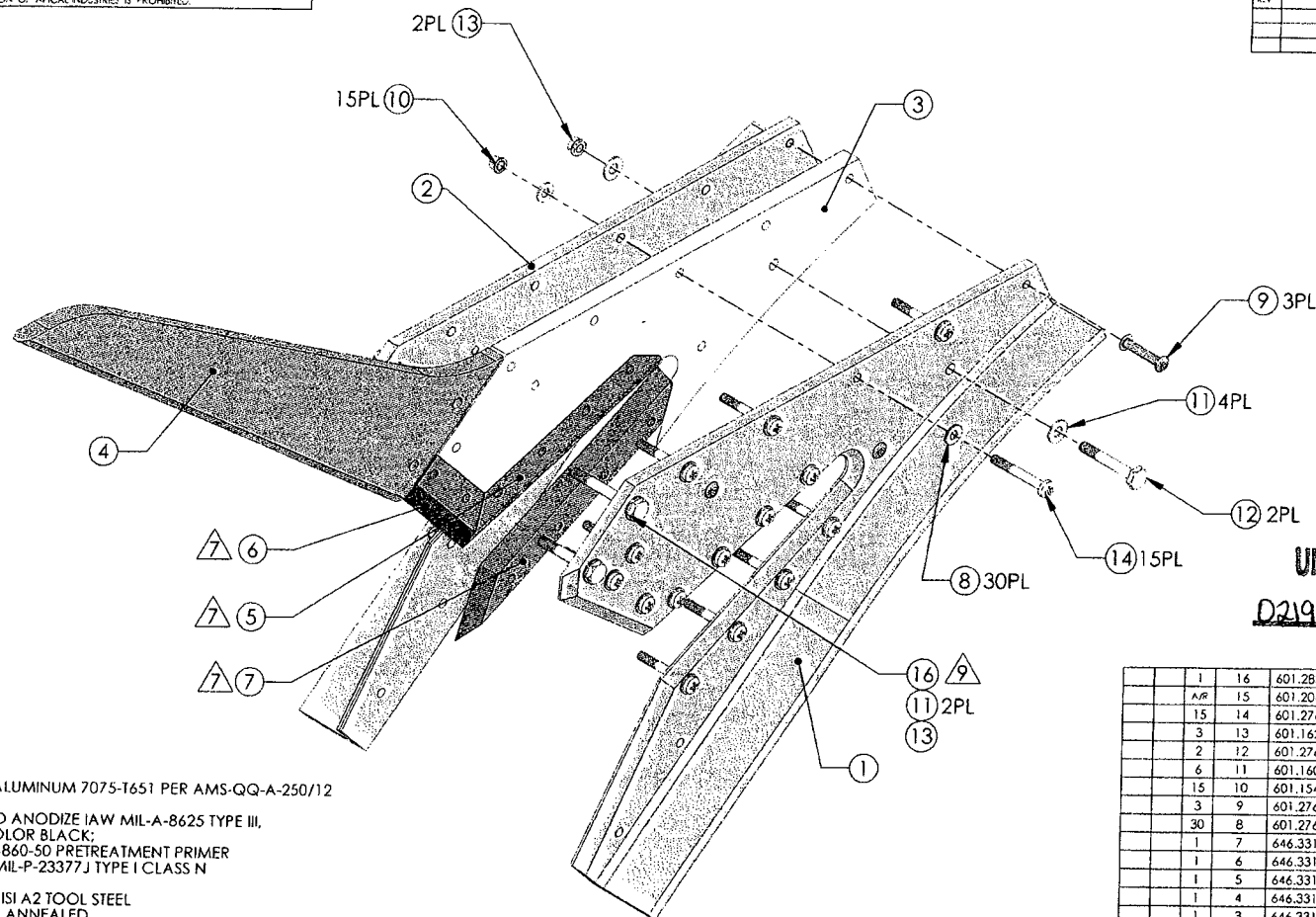
SECTION A-A 

C	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION

1 2 3 4 5 6 7 8

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REV	DESCRIPTION	DATE	APPROVED



UNINCORPORATED ECN(s)

02196, 03724, 04765

NOTES:

- 1 MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12
- 2 FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK; CARDINAL 4860-50 PRETREATMENT PRIMER PRIME IAW MIL-P-23377J TYPE I CLASS N
- 3 MATERIAL: AISI A2 TOOL STEEL CONDITION: ANNEALED POST PROCESS: HEAT TREAT TO 58-62 Rc ROCKWELL HARDNESS
- 4 FINISH: PRIME IAW MIL-P-23377J TYPE I CLASS N
5. DEBURR AND BREAK ALL SHARP EDGES EXCEPT WHERE OTHERWISE NOTED
6. IDENTIFY IAW MPP-120
- 7 APPLY F/N 15 AS REQUIRED TO ALL FAYING SURFACES OF F/N 5, 6 & 7 UPON ASSEMBLY
- 8 CUTTING EDGE INTENDED TO BE SHARP, DO NOT BREAK SHARP EDGE
- 9 INSTALL FASTENER FINGER-TIGHT

646.3301
SHOWN EXPLODED

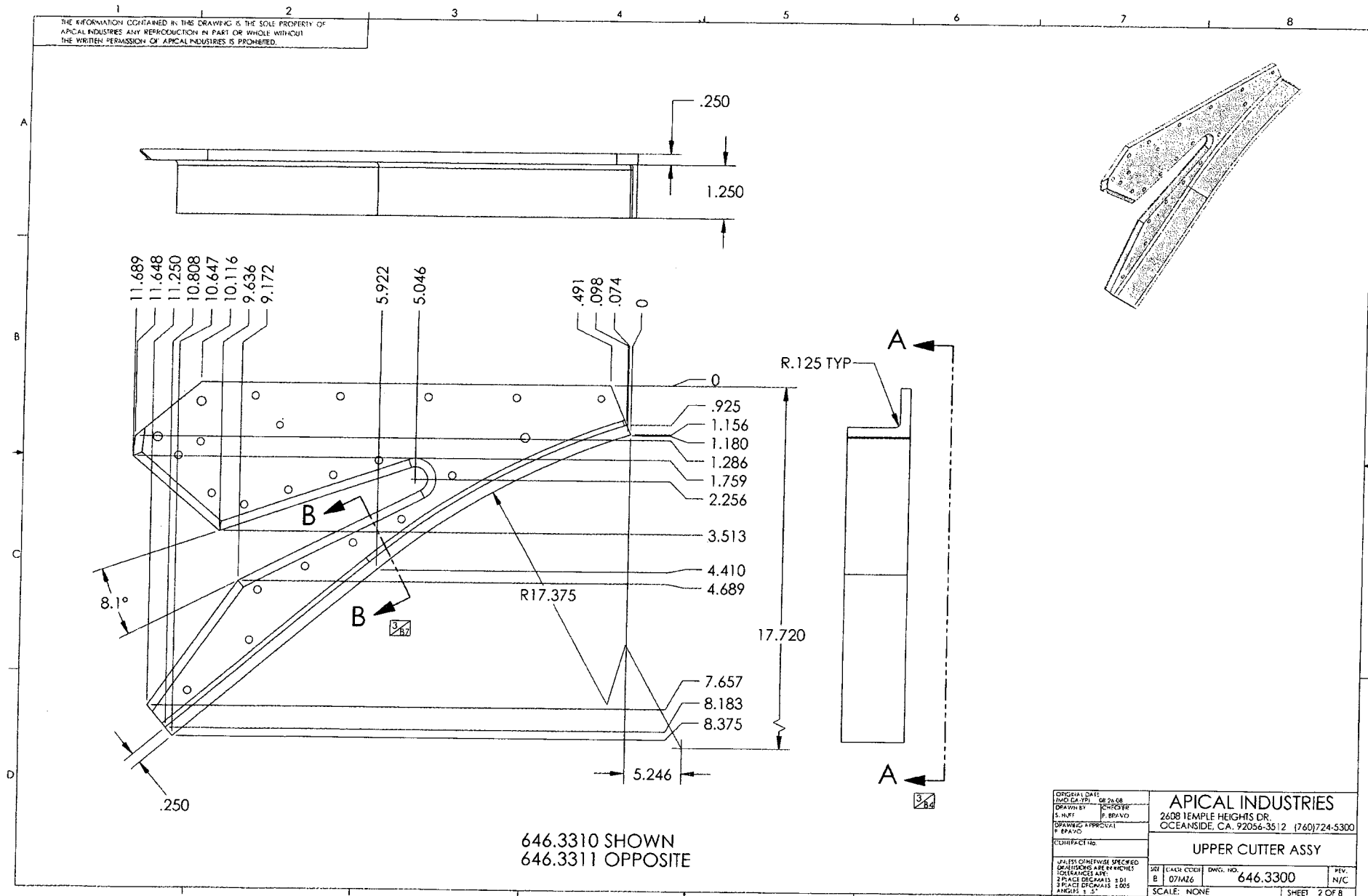
QTY	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.
1	16	601.2834	BOLT	AMS-144	
A/R	15	601.2045	RTV, LOCTITE 598		
15	14	601.2765	SCREW	MS2703M-0815	
3	13	601.1624	LOCKNUT	MS21045L3	
2	12	601.2763	BOLT	AMS-12A	
6	11	601.1807	WASHER	FMS1149F0332P	
15	10	601.1541	LOCKNUT	MS21042L08	
3	9	601.2766	RIVET	MS20410A DS-18	
30	8	601.2764	WASHER	FMS1149F0332P	
1	7	646.3316	BLADE		
1	6	646.3315	BLADE		
1	5	646.3314	BLADE		
1	4	646.3313	UPPER GUIDE		
1	3	646.3312	CENTER PLATE		
1	2	646.3311	RH HALF		
1	1	646.3310	LH HALF		
1		646.3301	UPPER CUTTER ASSY		
QTY	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.
646.4000			UPPER CUTTER ASSY		

APICAL INDUSTRIES
2608 TEMPLE HEIGHTS DR.
OCEANSIDE, CA. 92056-3512 (760)724-5300

UPPER CUTTER ASSY

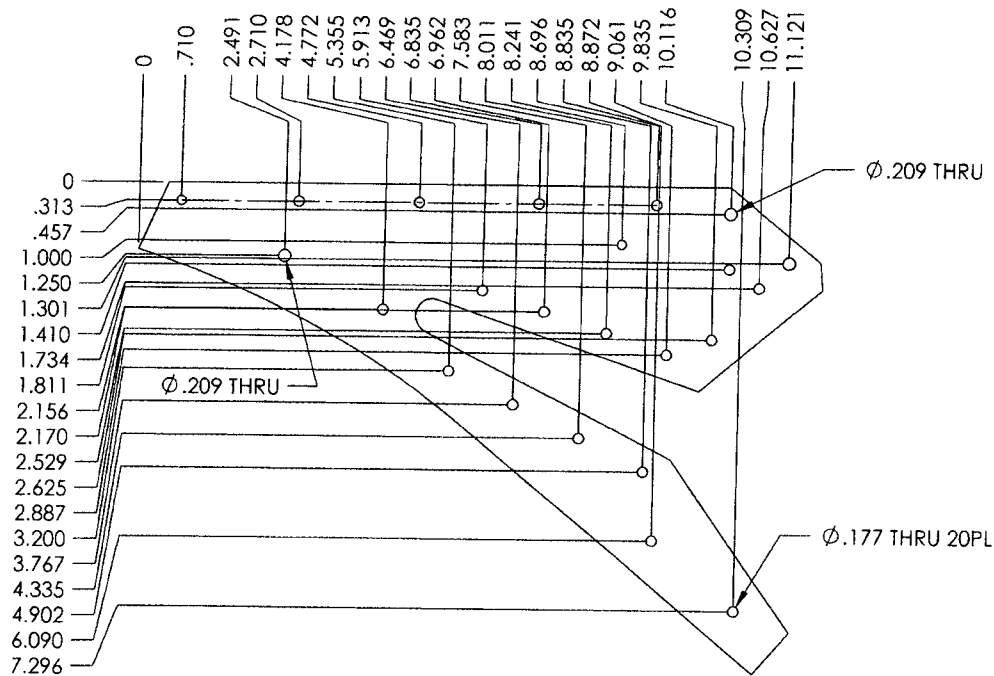
SCALE: NONE SHEET 1 OF 8

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APICAL INDUSTRIES. ANY REPRODUCTION IN PART OR WHOLE WITHOUT
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ORIGINAL DATE: 08-24-08		APICAL INDUSTRIES	
DRAWN BY: J. HOFER		2608 TEMPLE HEIGHTS DR.	
CHECKED BY: P. BRAYO		OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVALS:		646.3300	
CUTTER PART NO.		UPPER CUTTER ASSY	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ± .01 3 PLACE DECIMALS ± .005 ANGLES ± .5°		REV. NO. 07/02/06	REV. N/C
SCALE: NONE		SHEET 2 OF 8	

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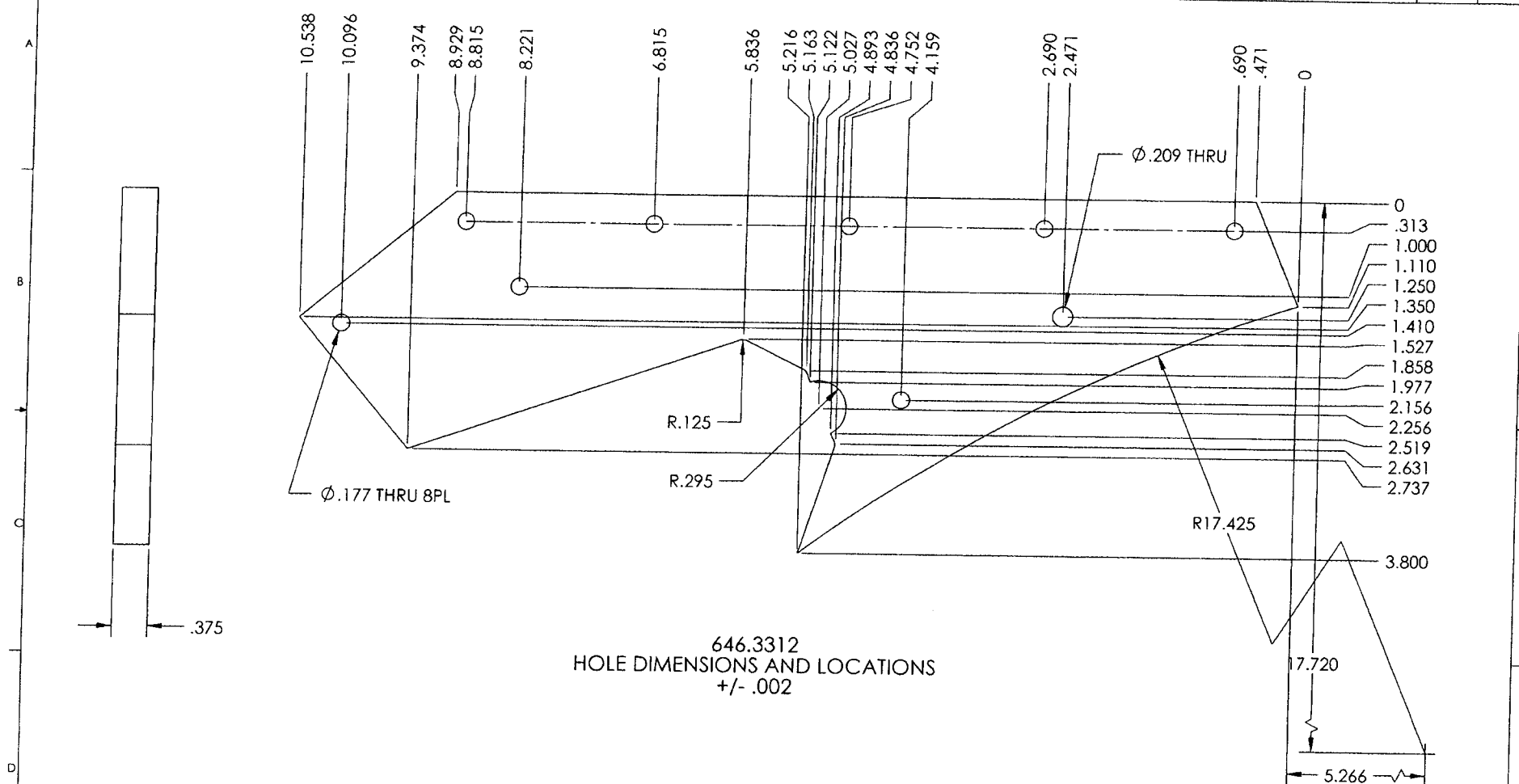
SECTION A-A

SECTION B-B

ORIGINAL DATE 10-24-06		APICAL INDUSTRIES	
DRAWN BY J. HERR		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760) 724-5300	
CHECKED BY P. BRANNO		UPPER CUTTER ASSY	
CONTRACT NO.		646.3300	
* UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ± .5°		REV. N/C	REV. N/C
SCALE NONE	SHEET 3 OF 8		

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED

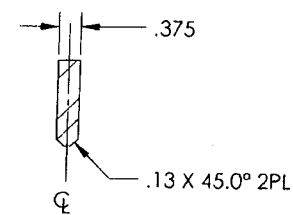
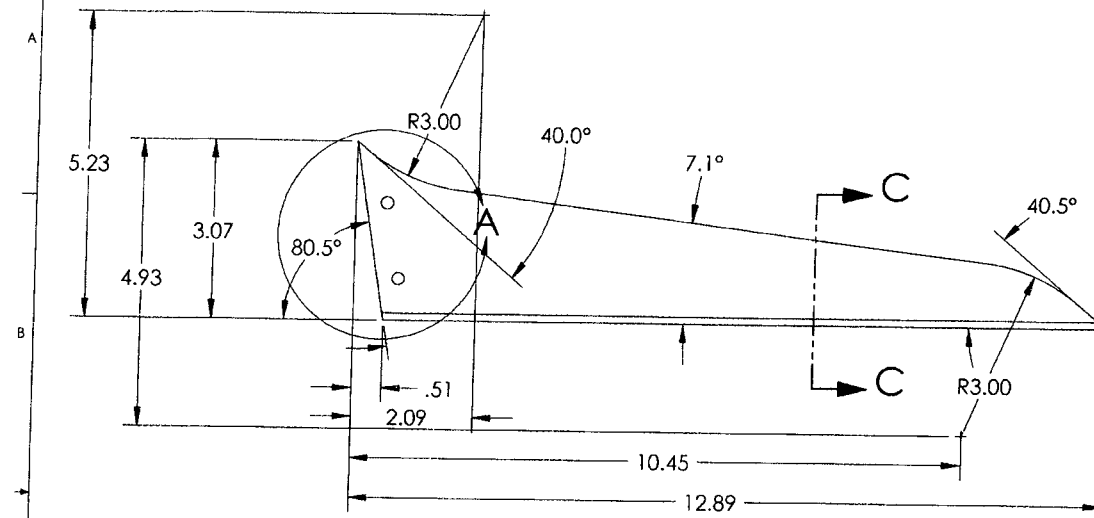


646.3312
HOLE DIMENSIONS AND LOCATIONS
+/- .002

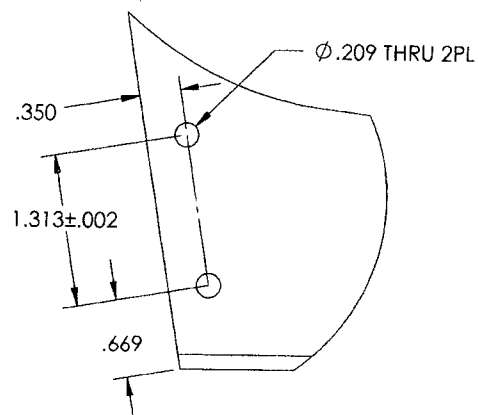
ORDER DATE JUN 04-1981	06-21-81	APICAL INDUSTRIES	
DRAWN BY S. HUFF	21-81	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL S. HUFF	06-21-81	UPPER CUTTER ASSY	
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE 1/2" PLACE DECIMALS ±.01 1" PLACE DECIMALS ±.005 ANGLES ±.01		SIZE B 07M26	QTY 646.3300
		SCALE NONE	REV. N/C
		SHEET 4 OF 4	

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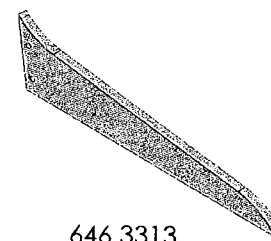
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



SECTION C-C



DETAIL A

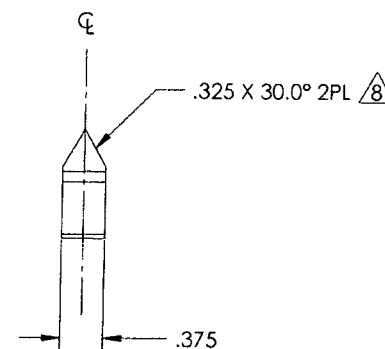
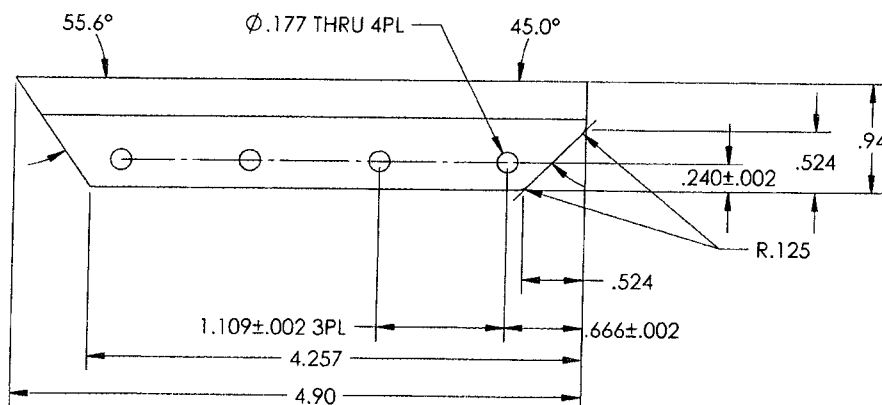


646.3313

ORIGINAL DATE: 08-28-08 DRAWN BY: CHECKER S. HEST DRAWING APPROVAL: P. BRADY DESIGNER: COMPARING:		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS: ±.01 3 PLACE DECIMALS: ±.005 ANGLES: ±.5°		SHEET: B CAGE CODE: 07M26 DWG. NO.: 646.3300	REV.: N/C SCALE: NONE SHEET: 5 OF 8
UPPER CUTTER ASSY			

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED

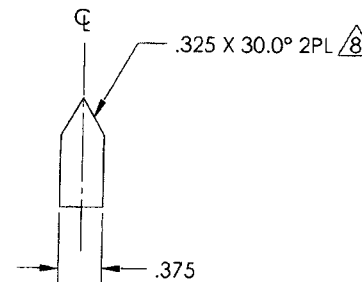
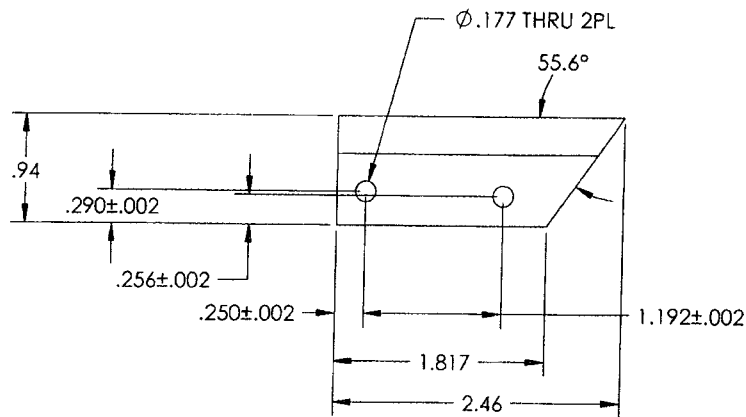
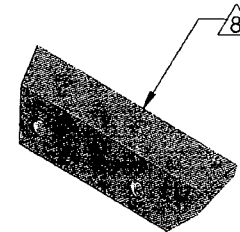


646.3314

ORIGINAL DATE: 08-26-08		APICAL INDUSTRIES	
DRAWN BY: JCNICETP		2608 TEMPLE HEIGHTS DR.	
S. HUN		OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL: P. BRAVO		UPPER CUTTER ASSY	
S. HUN		SCALE: NONE	
CONTRACT NO.		SHEET 4 OF 8	
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		REV. N/C	
TOLERANCES ARE:		CAGE CODE: 646.3300	
3 PLACE DECIMALS ±.01		DWG. NO. 646.3300	
2 PLACE DECIMALS ±.005		B 07M26	
ANGLES ±.5°			

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED

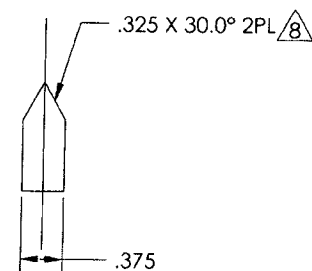
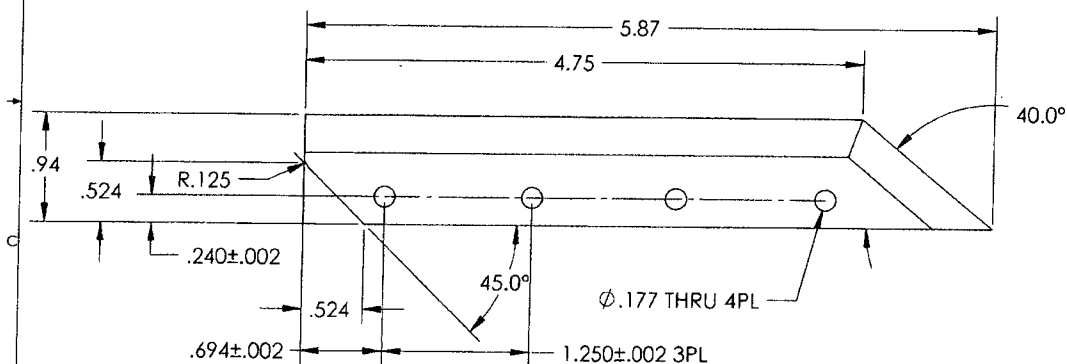
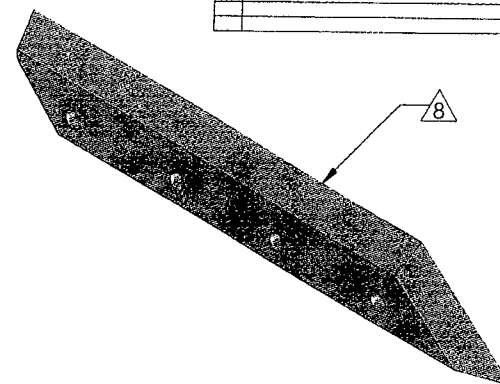


646.3315

DRAWN BY: S. NORT CHECKED BY: P. BRAVO DATE: 06-26-08 DRAWING APPROVAL: P. BRAVO CONTRACT NO.:	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5	SHEET 7 OF 8 SCALE: NONE CAGE CODE: 07M126 DWG NO: 646.3300 REV: N/C
UPPER CUTTER ASSY	

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



646.3316

GENERAL NOTE (A40-DA-13) 08-26-08 DRAWN BY: CHECKER A. HUFF P. BRAYO DRAWING APPROVAL: P. BRAYO 08-26-08 CONTRACT NO.		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.003 ANGLES ±.5°		IFC CAGE CODE B 07M26	DWG. NO. 646.3300
SCALE: NONE		REV N/C	SHEET 8 OF 8



A.T.G. Industries Inc.
731, rue Industrielle Rd.
PLATING DEPARTMENT
Rockland, On K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 63952

Date: 14-Oct-15

To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ship To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms

Ship Via

Quantity	Description	Rev:	Line:
7 ea	Part: D4824-1 UPPER CUTTER MOUNT HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2 PRIME MIL-P-23377J TYPE I CLASS N Job: 20150755 PO: PO30057	A	
8 ea	Part: 646.3310 LH HALF HARD ANODIZE AS PER MIL-A-8625 TY III, CLASS 2 PRIME AS PER MIL-P-23377J TYPE I CLASS N PRIMER IS SUPPLY BY THE CUSTOMER Job: 20150756 PO: PO30057	N/C	
8 ea	Part: 646.3311 RH HALF HARD ANODIZE AS PER MIL-A-8625 TY III, CLASS 2 PRIME AS PER MIL-P-23377J TYPE I CLASS N PRIMER IS SUPPLY BY THE CUSTOMER Job: 20150757 PO: PO30057	N/C	
Certificate of Conformance			
A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order.			
ISO 9001 : 2008 REGISTERED ATG SALES-2010 TERMS APPLY			
DATE: 14/10/15			



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO30057**

Purchase Order Date 10/7/2015

PO Print Date 10/9/2015

Page Number 2 of 3

Order From :

VC-ATG001

Ship To : DART AEROSPACE LTD

A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE ROAD
ROCKLAND, ON K4K 1T2
CANADA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

613-446-4544

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

Ship To Contact

Ship To Phone

Ship Via:

VENDOR'S TRUCK

Ship Acct:

Line Total: \$72.41

4	135438	646.3311 RH HALF REV. N/C	10/14/2015	4.00	\$18.10	\$72.40
---	--------	------------------------------	------------	------	---------	---------

Yes

10/14/2015

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-P-23377J TYPE 1 CLASS N

Line Total: \$72.40

5	136472	646.3311 RH HALF REV. N/C	10/14/2015	4.00	\$18.10	\$72.40
---	--------	------------------------------	------------	------	---------	---------

Yes

10/14/2015

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-P-23377J TYPE 1 CLASS N

Line Total: \$72.40

Note:

10/9/2015